

AMENDMENTS TO THE CLAIMS

1-72. (Cancelled)

73. (New) A method of forming a thermal barrier coating on a surface of a component having cooling holes, the method comprising:

forming masking pins in the cooling holes by filling each of the cooling holes with a liquid elastic body without coating the liquid elastic body onto the surface of the component, and by thereafter hardening the liquid elastic body in the cooling holes, wherein the masking pins do not protrude above the surface of the component; and

forming the thermal barrier coating on the surface of the component by spray coating after the forming of the masking pins.

74. (New) The method according to claim 73, wherein the cooling holes are not drilled through.

75. (New) The method according to claim 73, wherein the component is a combustor transition piece of a gas turbine and the cooling holes are made in an internal periphery surface of a wall constituting the combustor transition piece.

76. (New) The method according to claim 73, wherein the masking pins are comprised of a material having elasticity so as to be resistant to blasting, heat resistance so as to be able to endure heat caused by spray coating, stripping easiness so as to be entirely removable from the cooling holes after the forming of the thermal barrier coating, and adherence and wetness so as to prevent a thermal barrier coating material from accumulating on the masking pins.

77. (New) The method according to claim 73, wherein the masking pins are comprised of an elastic body of silicone rubber.

78. (New) The method according to claim 73, wherein the liquid elastic body comprises

liquid silicone rubber, and wherein the filling of the cooling holes with the liquid elastic body comprises injecting the liquid silicone rubber into each of the cooling holes, and wherein the hardening of the liquid elastic body comprises drying and hardening the liquid silicone rubber in the cooling holes.

79. (New) A method of forming a thermal barrier coating on a surface of a component having cooling holes, the method comprising:

forming masking pins in the cooling holes by filling each of the cooling holes with a liquid elastic body without coating the liquid elastic body onto the surface of the component, and by thereafter hardening the liquid elastic body in the cooling holes, wherein the masking pins do not protrude above the surface of the component;

blasting the surface of the component so as to coarsen the surface of the component; and

forming the thermal barrier coating on the surface of the component by spray coating after the forming of the masking pins and the blasting of the surface of the component.

80. (New) The method according to claim 79, wherein the cooling holes are not drilled through.

81. (New) The method according to claim 79, wherein the component is a combustor transition piece of a gas turbine and the cooling holes are made in an internal periphery surface of a wall constituting the combustor transition piece.

82. (New) The method according to claim 79, wherein the masking pins are comprised of a material having elasticity so as to be resistant to blasting, heat resistance so as to be able to endure heat caused by spray coating, stripping easiness so as to be entirely removable from the cooling holes after the forming of the thermal barrier coating, and adherence and wetness so as to prevent a thermal barrier coating material from accumulating on the masking pins.

83. (New) The method according to claim 79, wherein the masking pins are comprised of an elastic body of silicone rubber.

84. (New) The method according to claim 73, wherein the liquid elastic body comprises liquid silicone rubber, and wherein the filling of the cooling holes with the liquid elastic body comprises injecting the liquid silicone rubber into each of the cooling holes, and wherein the hardening of the liquid elastic body comprises drying and hardening the liquid silicone rubber in the cooling holes.